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MEMORANDUM REGARDING VISIT TO LONE STAR PLANT IN SEATTLE

On June 7, 1983 I met with the Regional Executive Vice President, A. K. Mueller, and the Seattle Plant Manager, Kenneth J. Rone, Jr., at the Lone Star plant office in Seattle.

The meeting was arranged by Ken Shipley as a result of a phone call from Jim Stewart expressing an interest on their part in selling their interest in the Pacific Northwest.

The purpose of my visit was to inspect the plant site and the equipment.

The first couple of hours of my visit were spent discussing the different expansion plans Lone Star has had in the Pacific Northwest mainly to get a feel of why they now have reached the conclusion to dispose of their operations in this area.

The people I talked to really had no idea why such a decision was made and were unable to give me any clue in that regard.

Lone Star has investigated many different options for cement plant expansion in the last ten years. Options ranged from building a cement plant at Texada Island, expanding their Seattle plant with a new preheater kiln, building a clinker plant at Concrete, Washington, utilizing the grinding and cement storage facilities at the present plant site and the very latest was to purchase a 50% interest in the Genstar Tilbury plant's clinker producing facilities and then shipping clinker to Seattle by barge. It was my impression that Al Mueller did not know why the deal with Genstar was dropped. It apparently came from Mr. Stewart in the 11th hour of the negotiations.

I was curious why Lone Star had preferred the building of a clinker plant at Concrete rather than the installation of a modern kiln at Seattle. Apparently there were different opinions in the Lone Star management as to what the best solution would be but the Concrete clinker plant was preferred mainly because all the necessary raw materials were found at that location whereas all raw materials for a plant located at Seattle have to be purchased.

At present the Seattle plant is receiving their limerock from the LaFarge quarry at Texada Island, siliceous material from Ravensdale, Washington and also from Wenatchee, Washington, iron ore slag from Tacoma.

Until recently coal was coming from Utah by rail which was unloaded at a 13 acre site owned by Lone Star at Kent, Washington and trucked into the plant as it was used. At present coal is barged in from Canada. Cost per million BTU approximately \$1.80.

Another consideration in preferring the Concrete site was that it was believed it would be easier to meet environmental requirements there than at Seattle. It was later found not to be true because the environmental people showed great concern for not disturbing the beautiful nature found at the property at Concrete. The Lone Star people are now of the opinion that it probably would be just as easy to obtain a permit at the present plant since it could be proven that a modernization program would reduce the emission in spite of an increase in production.



There is no question that the Concrete project was favored because of the raw material availability in that area and that Lone Star's management do not feel that it is advisable to invest money in a new plant without having ownership or complete control of the raw materials.

In the afternoon I spent approximately 1½ hours walking around the plant and I will just express my general impression of the site and the equipment as I was able to get during such a short trip.

The plant is located on a 23 acre site on the Duwanish River within the city limits of Seattle.

The river frontage is about 820' long having a 400' long concrete wharf on the northerly end and a 270' long dolphin pile dock extension south of the wharf.

The concrete wharf has a hammerhead crane for unloading barges and the dolphin dock has a receiving hopper for a self-unloading barge used for imported clinker. A pneumatic pump and piping system from the cement silos serves a cement unloading system on the concrete wharf with a loading capacity of 1,000 tons per hour for loading cement barges.

Water depth at the wharf varies from 12 to 16' and at the dolphin dock the depth is approximately 30'.

The attached fact sheet is self-explanatory. It should be noted that the raw mills and the kilns are of vintage 1928 but seem to be in fair condition. The burning zones of the kilns have been replaced with welded sections whereas the chain zone and calcining zones are the original riveted shells. Several of the tires for the kilns have been replaced within the last five years.

The finish mill consists of two 12' x 36' F. L. Smidth 2500 h.p. Unidan mills which were installed in 1968 and appear to be in excellent condition.

Six clinker silos (capacity 27,000 tons) and eight cement silos (capacity 37,600 tons) were also constructed in 1968.

Including the clinker shed, total clinker storage capacity is 46,600 tons. Including the nine old cement silos, the total cement storage capacity is 54,000 tons.

The 1968 expansion was designed in such a way that there was room left for a new kiln. The attached Lone Star drawing shows such a proposal. Provision was also made for a third finish mill.

My general impression from the short visit is that the site would be suitable for a modern plant. Many of the existing structures could be incorporated in a new plant, in particular the 1968 additions, resulting in great savings compared with a green field plant.

A rough estimate of savings could be

Property	3.0 Million
Dock Facilities	1.5 "
* Clinker Silos 7	3.0 "
* Finish Mill	12.0 "
* Cement Silos	4.0 "
* Conveyors	1.0 "
* Utilities	<u>1.5</u> "

26.0 Million

In addition to the Seattle property Lone Star also owns 13 acres at Kent, Washington, 400 acres of limestone at Dall Island, Alaska, and 2,000 acres at Concrete, Washington. If they want to sell all or part of this is not known at present.

Erik Voldbaek

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